



PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Kimmo KANSANEN, et al.

Group Art Unit: 2631

Application No.: 10/808,554

Examiner: Unassigned

Filed: March 25, 2004

Attorney Dkt. No.: 60091.00294

For: DATA PROCESSING METHOD, EQUALIZER AND RECEIVER

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

August 18, 2005

Sir:

Pursuant to 37 CFR §1.56, the attention of the Patent and Trademark Office is hereby directed to the information item(s) listed on the attached PTO-1449. Unless otherwise indicated herein, one copy of each item(s) is attached. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the item(s) be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

- ☒ 1. This Information Disclosure Statement is being filed (a) within three months of the U.S. filing date, OR (b) before the mailing date of a first Office Action on the merits in the present application, or (c) accompanies a Request for Continued Examination. No certification or fee is required.
- ☐ 2. This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection or Notice of Allowance.
- ☐ a. I hereby certify that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than

three months prior to the filing of this Information Disclosure Statement.
37 CFR §1.97(e)(1).

☐ b. I hereby certify that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(2).

☐ c. A check in the amount of \$180.00 in payment of the fee under 37 CFR §1.17(p). Please charge any fee deficiency or credit any overpayment to Counsel's Deposit Account No. 50-2222 as needed to ensure consideration of the disclosed information.

☐ 3. This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but before payment of the Issue Fee. Applicant(s) hereby petition(s) that the Information Disclosure Statement be considered. Attached is our check in the amount of \$180.00 in payment of the petition fee under 37 CFR §1.17(p). Please charge any fee deficiency or credit any overpayment to Counsel's Deposit Account No. 50-2222 as needed to ensure consideration of the disclosed information.


☐ a. I hereby certify that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(1).

☐ b. I hereby certify that no item of information in this Information Disclosure Statement was cited in any communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(2).

☒ 4. The references were cited in a counterpart foreign application. An English language version of the foreign search report is attached for the Examiner's information.

In the event that there are any fees due with respect to the filing of this paper, please charge Counsel's Deposit Account No. 50-2222.

Respectfully submitted,




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Enclosures: PTO-1449 Form; 4 References
International Search Report

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE 	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. 60091.00294	SERIAL NO. 10/808,554
	LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary)			
	APPLICANT Kimmo KANSANEN, et al.		FILING DATE March 25, 2004	GROUP 2631

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO PART.		
	AG	WO 2004/110003 A1	December 16, 2004	PCT			XX		
	AH								
	AI								
	AJ								
	AK								

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

AL	Kimmo Kansanen, et al., "A Computationally Efficient MIMO Turbo-Equaliser", IEEE Vehicular Technology Conference, 2003, April 23-25, 2003, Vol. 1, pp. 277-281
AM	Hiroo Omori, et al., "A Matched Filter Approximation for SC/MMSE Iterative Equalizers", IEEE Vehicular Technology Conference, 2001, October 7-11, 2001, Vol. 3, pp. 1917-1921
AN	Mariella Sarestoniemi, et al., "Core Matrix Inversion Techniques for SC/MMSE MIMO Turbo Equalization", IEEE Vehicular Technology Conference, 2004, May 17-19, 2004, Vol. 1, pp. 394-398

EXAMINER	DATE CONSIDERED
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.